

REMARKS

In an Office Action dated September 13, 2002, the Examiner has rejected all of the pending claims 12-26 on prior art grounds and objected to the drawings, the abstract, and the claims for various informalities. In reply to the Action, Applicants submit the present Response with amendment and remarks which places the application in condition for allowance. Entry of the amendment, consideration of the remarks, and allowance of the application is respectfully requested.

The Examiner's objections and rejections will now be addressed in turn.

The Examiner objects to the drawings under 37 C.F.R. §1.83(a) for failing to show: (1) an impact printing device as recited in claims 15-16; and (2) a plurality of printing devices oriented as recited in claims 20-21.

With regard to the first ground for objection enumerated above, Applicants respectfully direct the Examiner to the second sentence of §1.83(a):

However, conventional features disclosed in the description and claims, where their detailed illustration is not essential for a proper understanding of the invention, should be illustrated in the drawing in the form of a graphical drawing symbol or a labeled representation (e.g., a labeled rectangular box). 37 C.F.R. §1.83(a).

Figure 7 illustrates a general schematic representation of the process according to one embodiment of Applicant's invention. Figure 7 shows a "Printing Device" as a *labeled rectangular box* indicated by reference numeral 210. The printing device 210 is

described in the specification as comprising “any number of suitable printing devices which are designed to effectively print a pattern on a surface of the earplug” including an impact printing device or a non-impact printing device. Page 7, lines 14-18. The printing device 210, in both impact and non-impact embodiments, is represented by the generic labeled rectangular box 210 in Figure 7. Thus, the provisions of §1.83 are full satisfied; withdrawal of the objection concerning the claimed impact printing device is respectfully requested.

With regard to the second ground for objection to the drawings enumerated above, Applicants herein submit new drawings, Figures 9A-C. The specification is correspondingly amended. Figures 9A, 9B, and 9C are schematic representations of the printing devices 210 oriented 120°, 90°, and 180°, respectively, relative one another. Support for new Figures 9A-C is found throughout the original specification and claims, for example, in the specification at page 10, lines 10-14 and lines 23-25, and in claims 20-21. Thus, Figures 9A-C do not introduce any new matter; entry thereof is requested. Accordingly, the drawings comply with the provisions of §1.83 with regard to the disposition of the printing devices as recited in claims 20-21; withdrawal of the relevant objections is respectfully requested.

In the Action, the Abstract is objected to for containing improper language. To address the Examiner’s concerns, the Abstract is herein amended to comply with the provisions of MPEP §608.01(b). Withdrawal of the relevant objection is respectfully requested.

Claim 12 is objected to for including the indefinite article “a” instead of the phrase, “at least one”, in view of the dependent claim 20 recitation, “...printing device comprises a plurality of printing devices...” However, as is well known, “a” or “an” used in a claim suggests *one* but can also mean one or more than one. *Elkay Mfg. Co. v. Ebco Mfg. Co.*, 52 USPQ2d 1109 (Fed. Cir. 1999). In addition, the transitional phrase “comprising” is readily understood to be *open-ended* and is interpreted to mean, “including the following elements but not excluding others”. See: MPEP §2111.03; *Moleculon Research Corp. v. CBS, Inc.*, 229 USPQ 805, 812 (Fed. Cir. 1986); and *Burke, Inc. v. Everest & Jennings, Inc.*, 991 F.2d 812, 29 USPQ2d 1393, 1397 (Fed. Cir. 1993). Thus, “a printing device” as recited in claim 1 may certainly comprise a plurality of individual printing devices as recited in claim 20. Further, it is widely accepted that an applicant for patent may be his own *lexicographer* and that any special meaning assigned to a term must be made sufficiently clear in the specification. *In re Hill*, 161 F.2d 367, 73 USPQ 482 (CCPA 1947); *Multiform Desiccants Inc. v. Medzam Ltd.*, 133 F.3d 1473, 1477, 45 USPQ2d 1429, 1432 (Fed. Cir. 1998). The terminology used in claims 12 and 20 is clearly supported, for example, at page 10, lines 10-11. Accordingly, for at least the reasons set forth herein, the objection to claim 12 in view of claim 20 is improper and may not be maintained; reconsideration and withdrawal thereof is respectfully requested.

Claim 15 is objected to for lack of antecedent basis and improper and indefinite claim language. In reply, Applicants’ herein amend claim 15 to address the Examiner’s concerns. Accordingly, claim 15 complies with antecedent basis regulations and with the

provisions of MPEP §2173.05(b)(E); reconsideration and withdrawal of the outstanding objection of claim 15 is respectfully requested.

Claim 17 is objected to for want of antecedent basis. In reply, claim 17 is amended to establish proper dependency; reconsideration and withdrawal of the objection is respectfully requested.

Claim 21 is objected to for improper dependency. Applicant herein amends claim 21 to establish proper dependency; reconsideration and withdrawal of the objection is respectfully requested.

Claims 12-14 and 17-26 are rejected in the outstanding Office Action as being obvious over U.S. Patent No. 4,843,958 to Egosi in view of either U.S. Patent Nos. 6,364,052 or D349,571 to McLean and Merritt, respectively.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing that all elements of the invention are disclosed in the prior art; that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, must contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references; and that the proposed modification of the prior art must have had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996).

With regard to claim 12, Applicant submits that the outstanding obviousness rejection is improper and may not be maintained because *prima facie* obviousness does not exist, i.e. the Egosi, McLean, and Merritt references, taken singularly or in combination: (1) fail to teach or suggest all of the recited claim limitations; (2) do not suggest or motivate combining and modifying the references as suggested by the Examiner; and (3) do not offer a reasonable expectation of success in forming Applicants invention.

Considering claim 12, a process is recited for forming a pattern on an earplug comprising, *inter alia*, providing an earplug, orienting the earplug relative to a printing device, and printing the pattern on the earplug using the printing device. An earplug 10 is shown in one embodiment in Figure 1 including a first end 12, an opposing end 14, and a first pattern 20 formed on the earplug 10. Figure 7 schematically represents an exemplary process of forming the pattern 20 on the earplug 10. Namely, the undecorated earplug 200 is communicatively engaged with a printing device 210 which prints the pattern on the earplug. A controller 212 and an orientation mechanism 213 may position the printing device 210 and the undecorated earplug 200, respectively, to facilitate printing by the printing device 210.

Egosi, to the contrary, teaches a method and apparatus for applying *advertisements* to *eggs*. The advertisements are applied to the eggs E by advertisement dispensing means 56 included in an egg candling and grading machine. Col. 2, line 67 – col. 3, line 25, and Figure 2. The eggs E are brought proximate the advertisement dispensing means 56 by an assembly including a plurality of fingers 84 which grip the eggs E and a carrier/balancing

arm 80, 70 capable of pivoting the gripped eggs E toward the advertisement dispensing means 56. Col. 5, lines 4-44 and Figure 5.

Egosi does not teach or suggest providing an earplug, orienting the earplug, nor printing a pattern on the earplug, as recited in claim 12 and, thus, by itself does not anticipate nor render obvious the claimed invention. The Examiner concedes that Egosi does not teach or suggest a printing process for an earplug but contends that McLean and Merritt do relate to earplugs and thus, when combined with Egosi, render the invention of claim 12 obvious under §103.

Turning first to Merritt, an ornamental design for a combination ear protector and cheering aid is disclosed and claimed. The reference includes one drawing illustrating an elongated object having a “4” shown at one end thereof. The nature of the number “4” is unknown. That is, Merritt does not disclose what the numeral “4” is nor how it is applied to the elongated object. From the disclosure of the reference, it is unclear whether the “4” is printed, stamped, etched, adhered, or otherwise applied to the elongated object. Thus, the Examiner’s conclusion that Merritt teaches an earplug having a *printed* design thereon is unsubstantiated.

It is known that drawings alone can anticipate or make obvious a claimed invention but the drawing must show all the claimed structural features and how they are put together. *In re Mraz*, 455 F.2d 1069, 173 USPQ 25 (CCPA 1972); *Jockmus v. Leviton*, 28 F.2d 912 (2d Cir. 1928). Clearly, Merritt does not show *all the claimed structural features and how they are put together* as required by law.

Considering the above, it is abundantly clear that Merritt does not teach or suggest Applicants' process recited in the present claim 12 nor remedy the deficiencies of Egosi as suggested by the Examiner.

Turning now to McLean, the reference discloses an earplug including a configuration and a surface ornamentation so as to resemble a product other than earplugs, or a container for such product. Col. 1, lines 24-27. The earplug of the reference is shown in three different embodiments in Figures 1-3 and is represented by reference numerals 10, 20, and 30, respectively. The McLean earplugs include surface ornamentation 12, 24, and 32 so that the earplug resembles a selected product. While the reference generally mentions that the surface ornamentation is applied to the earplug with a printing material (col. 2, lines 45-50), McLean does not teach or disclose a *method* or *process* for actually printing the ornamentation. That is, McLean discloses an earplug with surface ornamentation applied thereto without disclosing a method or manner of said application.

Thus, clearly, McLean does not teach or suggest providing an earplug, orienting the earplug, nor printing a pattern on the earplug, as recited in Applicants' process of claim 12. Accordingly, McLean does not anticipate nor render obvious claim 12 nor does McLean remedy the above-mentioned deficiencies of Egosi and Merritt.

Thus, for at least the reasons stated herein, the Egosi, Merritt, and McLean references, taken singularly or in combination, do not teach or suggest all of the limitations of claim 12 and, accordingly, for lack of *prima facie* obviousness, do not anticipate nor render obvious claim 12. Therefore, reconsideration and withdrawal of the obviousness rejection of claim 12 is respectfully requested.

Further, even assuming that all the elements of Applicants' claim 12 are disclosed in the Egosi, Merritt, and/or McLean references, the Examiner cannot establish obviousness by locating such references that describe various aspects of applicants' invention without also providing evidence of the motivating force which would have impelled one skilled in the art to do what applicants have done. *Ex parte Levengood*, 28 U.S.P.Q.2d 1300 (Bd. Pat. App. Int. 1993). The references, when viewed by themselves and not in retrospect, must suggest the invention. *In Re Skoll*, 187 U.S.P.Q. 481 (C.C.P.A. 1975). Here, considering that the main reference, Egosi, does not even allude to printing on earplugs or, for that matter, considering that Egosi does not allude to printing on any type of hearing protection or safety equipment whatsoever, clearly, the required suggestion or motivation to combine and/or modify is notably *absent*.

Finally, considering that the Egosi, Merritt, and McLean references fail to teach or suggest all of the limitations of claim 12, as discussed, one of ordinary skill in the art would not have had a reasonable expectation of success in combining the references to create the invention as recited in claim 12.

Thus, clearly, *prima facie* obviousness does not exist with respect to claim 12 with regards to the Egosi, Merritt, and McLean references; reconsideration and withdrawal of the outstanding obviousness rejection is respectfully requested.

Claims 13-14 and 17-26 variously depend from allowable claim 12, thus claims 13-14 and 17-26 are correspondingly allowable; reconsideration and withdrawal of the obviousness rejection of claims 13-14 and 17-26 is respectfully requested.

Claims 12-15, 18-20, and 22 are rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 5,655,453 to Ackley in view of McLean or Merritt.

Again with regard to claim 12, Applicant submits that the outstanding obviousness rejection is improper and may not be maintained because *prima facie* obviousness does not exist, i.e. the Ackley, McLean, and Merritt references, taken singularly or in combination: (1) fail to teach or suggest all of the recited claim limitations; (2) do not suggest or motivate combining and modifying the references as suggested by the Examiner; and (3) do not offer a reasonable expectation of success in forming Applicants invention.

Ackley teaches a method and apparatus for marking pellet shaped articles. Particularly, the reference teaches an apparatus for applying indicia to pellet shaped objects of the food and pharmaceutical industries, i.e., objects such as capsules, caplets, pills, and tablets. Col. 4, lines 48-59. The Ackley patent is directed toward combining an ink-jet system with a pellet-conveying system which is especially configured to properly locate and maintain the pellet-shaped articles in proper position as they traverse the ink-jet system. Col. 3, lines 35-42.

It is noted with particular emphasis that Ackley does not teach or suggest providing an earplug, orienting the earplug, nor printing a pattern on the earplug, as recited in Applicant's claim 12. Further, it is noted that the reference is limited to non-impact printing (e.g., ink-jet printing) and does not teach or suggest impact printing techniques as recited in Applicant's claim 15. Merritt and McLean also fail to teach these recited claim limitations (see discussion above). Claims 13-14, 18-20, and 22 all variously depend from claim 12. Accordingly, the relied upon references fail to teach or suggest all of the

limitations of claims 12-15, 18-20, and 22, thus *prima facie* obviousness does not exist in regard to these claims with respect to the Ackley, Merritt, and McLean references.

Furthermore, considering that the main reference, Ackley, does not even allude to printing on earplugs or, for that matter, considering that Ackley does not allude to printing on any type of hearing protection or safety equipment whatsoever, clearly, the required suggestion or motivation to combine and/or modify is once again notably *absent*.

Also, considering that the Ackley, Merritt, and McLean references fail to teach or suggest all of the limitations of claim 12, as discussed, one of ordinary skill in the art would not have had a reasonable expectation of success in combining the references to create the invention as recited in claim 12.

Thus, clearly, *prima facie* obviousness does not exist with respect to claim 12, and claims 13-15, 18-20, and 22 depending therefrom, with regards to the Egosi, Merritt, and McLean references; reconsideration and withdrawal of the outstanding obviousness rejections is respectfully requested.

Claim 16 is rejected under 35 U.S.C. §103(a) as being obvious over Ackley in view of McLean or Merritt and further in view of U.S. Patent 5,142,976 to Roulleau.

Claim 16 depends from allowable claims 15 and 12. Thus, claim 16 is correspondingly allowable; withdrawal of the outstanding obviousness rejection is respectfully requested.

Further, Roulleau teaches a machine for affixing a decorative motif to an uncooked poultry egg by contacting ink pads 8, 10, 12, and 13 to the eggs. Figure 1 and col. 2, line 54 – col. 3, line 11. Roulleau does not teach or suggest providing an earplug, orienting the

earplug, nor printing a pattern on the earplug, as recited in Applicant's claim 12. Thus, Roulleau does not anticipate nor render obvious applicants' claim 12 nor does Roulleau remedy any of the deficiencies of Ackley, Merritt, or McLean. Additionally, Roulleau does not offer any motivation or suggestion to combine and/or modify the references as suggested by the Examiner nor does Roulleau offer any reasonable likelihood of success in forming Applicants' claimed invention through such fictitious combination. Accordingly, Ackley, Merritt, McLean, and Roulleau fail to create a case of *prima facie* obviousness against claim 12. Therefore, claim 12 and, correspondingly, claim 16 are not anticipated nor rendered obvious by Ackley in view of McLean or Merritt and further in view of Roulleau; reconsideration and withdrawal of the outstanding rejection is requested.

New claims 27-39 are herein added. Claims 27-39 are supported by the original specification, drawings, and claims, thus no new matter is entered. The new claims further define Applicants' invention over the cited references and generally include all of the limitations of allowable claim 12 as well as additional limitations. Entry of claims 27-39, consideration and allowance thereof are respectfully requested.

The Examiner's assertion of *prima facie* obviousness of claims 12-26 is unfounded for at least the reasons set forth herein; reconsideration and withdrawal of the related rejections is requested. Entry and consideration of claims 27-39 is requested. Allowance of all claims is now respectfully requested.

Applicants hereby petition for any extension of time necessary with respect to the present Response. The Commissioner is hereby authorized to charge any fees with regard

to this Response, or otherwise concerning the present application, to Deposit Account Number 06-1130 maintained by Applicants' attorneys.

The Examiner is invited to contact Applicants' attorneys at the below-listed telephone number with regard to this Response or otherwise concerning the present application for patent.

Respectfully submitted,

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PATENT TRADEMARK OFFICE

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MARKED UP VERSION TO SHOW CHANGES MADE

IN THE SPECIFICATION:

“Referring now to the drawings wherein like elements are numbered alike in the several FIGURES:

FIGURE 1 is a perspective view of an earplug according to a first embodiment showing a first graphic design;

FIGURE 2 is a perspective view of an earplug according to a second embodiment showing a second graphic design;

FIGURE 3 is a perspective view of an earplug according to a third embodiment showing a third graphic design;

FIGURE 4 is a perspective view of an earplug according to a fourth embodiment showing a fourth graphic design;

FIGURE 5 is a perspective view of an earplug according to a fifth embodiment showing a fifth graphic design;

FIGURE 6 is a perspective view of an earplug according to a sixth embodiment showing a sixth graphic design;

FIGURE 7 is a general schematic drawing outlining a printing process according to the [present]invention; [and]

FIGURE 8 is a perspective partially cut-away view of an exemplary nozzle assembly for transferring ink onto a surface of the earplug to form the pattern; and

FIGURES 9A-9C are general schematic drawings illustrating the printing process according to the invention.”

IN THE CLAIMS:

Claims 15, 17, 20, and 21 are rewritten herein as follows:

15. (Amended/Marked Up) The process of claim 12, wherein the printing device comprises an impact [type]printing device which intimately contacts the earplug surface [when the pattern is formed on the foam body]during said printing.

17. (Amended/Marked Up) The process of claim [14]13, wherein the ink jet printing device forms a dot matrix pattern.

20. (Amended/Marked Up) The process of claim 12, wherein the printing device comprises a plurality of printing devices orientated relative to one another so that a plurality of patterns are formed on the earplug.

21. (Amended/Marked Up) The process of claim [21]20, wherein the plurality of printing devices are orientated one of 120°, 180°, and 90° relative to one another.

IN THE ABSTRACT:

The Abstract is rewritten herein as follows:

“[The present invention provides a] A printing process is provided for forming a pattern on an earplug[. More specifically], including orientating and transferring the earplug [may be orientated and transferred] to a printing device and [which] form[s]ing the pattern on the earplug. The printing device may comprise an ink jet printer. The pattern may be formed of any number of colors and may comprise a custom logo, printed text, a decorative pattern, or any other pattern.”